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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,864

01/23/2004

Jac Gan Ko

DAE-0012

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EXAMINER

HA, DAC V

ART UNIT

PAPER NUMBER

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/763,864

Applicant(s)

KO, JAE GAN

Examiner

Dac V. Ha

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-3, 5-8** are rejected under 35 U.S.C. 102(e) as being anticipated by Poulton et al. (US 6,556,628) (hereafter Poulton).

Regarding claim 1, Poulton discloses all claimed subject matter “transmission lines to transmit the data information provided from the signal transmitting unit, wherein the data information is recognized in association with voltage levels at ends of the transmission lines located in the signal receiving unit, and the number of the transmission lines is at least three” in Fig. 5; col. 6, line 9 to col. 7, line 5.

Regarding claim 2, Poulton further discloses the claimed subject matter “first matching unit disposed between ends of first and second transmission lines located in the signal receiving unit; second matching unit disposed between ends of the second and third transmission lines located in the signal receiving unit; and third matching unit disposed between the ends of the third and first transmission lines located in the signal receiving unit; wherein each of the first to third matching units has an impedance

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matching with an impedance of the first to third transmission lines to prevent distortion of the data information" in col. 6, lines 51-59.

Regarding claim 3, see claim 2.

Regarding claim 5, Poulton further discloses the claimed subject matter "wherein the ends ... voltage levels" in col. 6, line 23 to col. 7, line 5.

Regarding claim 6, see claim 1 and col. 7, line 6 to col. 9, line 32.

Regarding claim 7, Poulton discloses:

"providing a first matching unit between the ends of the first and second transmission lines located in the signal receiving unit" (Fig. 5, element R_A; col. 6, lines 56-65);

providing a second matching unit between the ends of the second and third transmission lines located in the signal receiving unit; (Fig. 5, element R_B; col. 6, lines 56-65)

providing a third matching unit between the ends of the third and first transmission lines located in the signal receiving unit (Fig. 5, element R_C; col. 6, lines 56-65).

Regarding claim 8, Poulton further discloses "wherein the recognizing ... the current" in col. 7, line 6 to col. 8, line 50.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4, 9, 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Poulton.

Regarding claim 10, Poulton discloses transmitting and receiving a first data group and second data group as discussed in claim 1 above. Poulton differs from the claimed invention in that Poulton does not teach "recognizing the data information using a combination of the first and second data groups". Poulton, instead, discloses an expansion from the concept by using four transmission lines for obtaining more possibility from the output of the receiver. Thus, for the same purpose, one skilled in the art would have easily derived from the original concept for expanding the capability of the such a transmission, i.e. using combination of two or more groups, as an alternative. Of course, such alternative would have been also easily realized by one skilled in the art as there would be a trade off associated with it. Therefore, such claimed subject matter would have been obvious to one skilled in the art as application preference.

Regarding claim 4, see claim 3 above. Further, Poulton suggests that the particular value of "matching unit" is preferably selected (col. 6, lines 51-3). Thus, the claimed subject matter in claim 4 would have been obvious to one skilled in the art as application specific.

Regarding claim 9, see claim 4 above.

Drawings

5. The drawings are objected to because Figure 5 contains non-English text. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

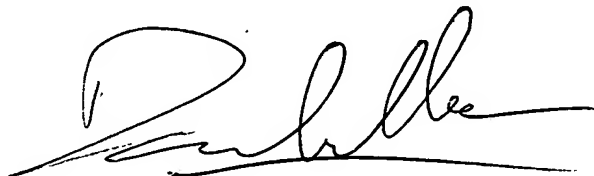
Kizer (US 7,072,355) discloses periodic Interface Calibration For High Speed Communication.

Gradl (US 6,842,037) discloses Shared Transmission Line Communication System And Method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line underneath.

Dac V. Ha
Primary Examiner
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